

e. Maintenance task distribution will be developed by using the MAC, maintenance level workload capability, and latest repair turnaround times. (See AR 700–18.)

6–13. Logistics demonstration

a. Maintenance support tests, demonstrations, and evaluations will be conducted for materiel during acquisition, including materiel undergoing major modifications. They will constitute the major portion of the overall equipment testing for logistical supportability. The purpose of logistics demonstration testing is to assure that the materiel, with the support that will be available in the field, can be properly and safely maintained in its intended operational environment according to the approved maintenance/logistical support concept. Tests and evaluation will also serve to verify adequacy of the maintenance portion of the SSP, manpower requirements data, and compatibility with designated TMDE.

b. Responsibilities for initiating, planning, programming, conducting, and reporting DT and OT are covered in AR 73–1. Maintenance test, evaluation, and demonstration requirements are implemented through the ILS process in AR 700–127.

6–14. Materiel release and fielding

a. The objective of the materiel release for issue process is to establish a management control system to ensure that materiel released for issue by the Army is safe, operates as designed, and is logistically supportable during fielding. Materiel fielding is the process of planning, coordinating, and executing the deployment of a materiel system and its support. AR 700–142 covers the policy for these programs. DA Pam 700–142 contains instructions, formats, reporting requirements, and schedules used to carry out the policies.

b. Maintenance activities within materiel proponents will comply with policy and procedures in the publications referenced above to ensure that—

(1) Materiel is available for test and evaluation by U.S. Army Test and Evaluation Command to ensure that all established requirements and specifications are met.

(2) New equipment training (NET) has been accomplished per AR 350–35.

(3) Organic Army support has been established or contractor support is available.

(4) Verified DA equipment publications or authenticated and verified COTS manuals are available.

(5) Necessary support equipment, special tools, and TMD to support the new item are available.

6–15. Planning, programming, and budgeting for STS and SSTS

a. During the development and production phases of the weapon system life cycle, STS will be planned, programmed, and budgeted for by the program manager of the weapon system. STS will be funded with procurement dollars.

b. Commencing with the first full fiscal year after production ends, STS will transition, with funding, to SSTS and will be planned, programmed, and budgeted for by the supporting USAMC MSC. SSTS will be funded with OMA dollars. STS funding will transition from procurement to OMA concurrent with the transition of programming responsibility from the PM/program executive officer (PEO) to USAMC.

c. For those weapon systems currently managed by PEO/PMs that are forecasted to go out of production during the POM years, the PEO/PMs will develop weapon system schedules in coordination with the gaining USAMC MSC.

d. SSTS requirements will be developed by weapon system and function (logistics assistance representatives) and/or type of program (such as SDC). The USAMC MSC will validate and certify all SSTS requirements and cost estimates, whether contractual or organic, prior to submitting the annual HQDA on-site reviews. Supporting documentation used in support of the MSC SSTS requirements validation will be retained for HQDA review. USAMC will compile the MSC data for submission to HQDA in support of the POM each year.

e. The latest ODCS, G–3 prioritization guidance for sustainment of fielded equipment will be used, and a priority will be assigned based on the criteria established in the guidance. Funds will be applied in priority order. HQ USAMC will provide justification for any deviation. A copy of the latest prioritization guidance may be obtained from ODCS, G–3, ATTN: DALO–SMM, 500 Army Pentagon, Washington, DC 20310–0500.

Chapter 7 Maintenance Programs

7–1. Maintenance award program

a. *Chief of Staff, Army Award for Maintenance Excellence program.*

(1) *Purpose.* The Chief of Staff, AAME program is conducted each year to recognize Army units/activities that have demonstrated excellence in maintenance operations.

(2) *Objective.* The objectives of the AAME program are to improve and sustain unit maintenance readiness, assess

the status of total unit maintenance readiness, improve efficiency and reduce waste, recognize outstanding maintenance accomplishments and initiatives, ensure the best units compete, and promote competition at MACOM, HQDA, and DOD levels.

(3) *Responsibilities.*

(a) Each year the Chief of Staff, U.S. Army (CSA), or his or her designated representative, will present the AAME plaques to the 12 winners and 12 runners-up for their superior maintenance operations.

(b) The ODCS, G-4 will—

1. Provide program funding guidance, policy, and overall supervision of the program.
2. Determine the most-appropriate means of award presentation and coordinate the annual award ceremony.
3. Conduct the Army board that selects six nominees to the Secretary of Defense Maintenance Awards Program.

(c) The Commander, U.S. Army Ordnance Center and School (USAOC&S) will—

1. Serve as executive agent for administration of the AAME program.
2. Assist ODCS, G-4 in the development and coordination of updates and modifications to policy and administrative instructions.
3. Develop, revise, and maintain security of assessment protocols used to select semifinalists, runners-up, and winners.
4. Convene the HQDA assessment board and conduct on-site evaluation team visits.
5. Assist DCS, G-4 in determining the most appropriate means of award presentation and coordinating the annual award ceremony.

6. Host an annual after-action review (AAR) with MACOM representatives.

(d) MACOM commanders will—

1. Promote competition at all levels of command and develop awards to recognize units/activities participating in all levels of the competition process.
2. Validate, select, and endorse nomination packets submitted by subordinate organizations in accordance with appendix D and forward to USAOC&S.

(e) Commanders, TRADOC, CNGB, and the Office of the Chief of Army Reserve (OCAR) will provide board members and on-site evaluation team members to support the assessment process as required by the USAOC&S.

(f) Unit commanders (or equivalent) will conduct their programs within the guidelines established in this paragraph and in appendix D.

(4) *Categories of competition.*

(a) Categories of competition are based on unit-authorized personnel. The categories are—

1. Small: 10 to 100 authorized personnel.
2. Medium: 101 to 300 authorized personnel.
3. Large: 301 or more authorized personnel.

(b) The four component competition areas are—

1. Active Army TOE/MTOE unit.
2. ARNG TOE/MTOE unit.
3. USAR TOE/MTOE unit.
4. TDA unit (any component).

(c) Within each of the four component competitions, units will compete in their respective categories, based on the number of authorized personnel identified in (a), above.

(5) *Command nomination process.*

(a) Nominations will be accepted from the following MACOMs:

1. Eighth U.S. Army.
2. U.S. Army, Europe, and Seventh Army.
3. U.S. Army Forces Command.
4. U.S. Army Pacific.
5. U.S. Army South.
6. NGB—an Army Command.
7. U.S. Army Intelligence and Security Command.
8. U.S. Army Medical Command.
9. U.S. Army Materiel Command.
10. U.S. Army Military District of Washington.
11. U.S. Army Military Traffic Management Command.
12. U.S. Army Special Operations Command.
13. U.S. Army Training and Doctrine Command.
14. U.S. Army Criminal Investigations Command.

15. U.S. Army Corps of Engineers.
 16. U.S. Army Reserve Command—an Army Command.
 17. U.S. Army Space and Missile Command.
 18. U.S. Army Networks Enterprise Technology Command/9th Army Signal Command.
- (b) The number of nominations that may be submitted by a MACOM are limited, as follows:
1. Each Active Army MACOM may submit six nominations for the Active Army TOE/MTOE competition: two small-, two medium-, and two large-unit nominations, except FORSCOM, which may elect to submit three per category.
 2. FORSCOM may submit 18 nominations for the USAR TOE/ MTOE competition: six small-, six medium-, and six large-unit nominations. All other MACOMS with USAR units may submit six nominations for the USAR TOE/ MTOE competition: two small-, two medium-, and two large-unit nominations.
 3. The NGB may submit 18 nominations for the ARNG TOE/ MTOE competition: six small-, six medium-, and six large-unit nominations.
 4. Each MACOM may submit six nominations for the TDA competition: two small-, two medium-, and two large-unit/activity nominations.
- (c) The program is designed to assess the unit's maintenance operations at division, brigade, battalion, company, battery, troop, and equivalent MTOE/TDA organizations. However, parent units (for example, brigade, battalion) that compete must address all subordinate elements in their nomination packages.
- (d) With the approval of the responsible MACOM commander, detachments that meet all other requirements of this regulation and are assigned unit maintenance functions may compete. Detachments, teams, or other elements that are temporarily separated from the parent organization will compete as part of their parent unit and not as a separate entity.
- (e) Units that have effective date changes to their MTOE or TDA during the competitive fiscal year will be assessed on the MTOE/TDA under which they were organized for the greatest part of the year. Commanders should note MTOE/TOE changes in their comments. Units with an augmentation TDA to their base TOE will compete as TOE units.
- (6) *Submission of nomination packages.*
- (a) Instructions for preparing and submitting the AAME nomination package are listed in appendix D.
 - (b) Units will submit packets through command channels to their appropriate MACOM.
 - (c) MACOMs will review and select those packets to be nominated to the HQDA-level AAME competition in accordance with instructions and criteria in appendix D. If selected to represent the MACOM, MACOMs will then endorse and forward the original packets for each unit/activity nominated to arrive at the USAOC&S not later than 15 December following the fiscal year of competition.
 - (d) Submission of nomination packages to the USAOC&S constitutes consent for an on-site evaluation of the unit's maintenance program as articulated in the nomination packet.
- (7) *HQDA evaluation process.*
- (a) *Phase I: submission of AAME nomination packets.*
 1. USAOC&S will convene an evaluation board and appoint an appropriate chairperson.
 2. The board members will be drawn from TRADOC service schools, OCAR, NGB, and other special activities. Members will have both a proven performance record and expertise in maintenance. Personnel will be in the grades of master sergeant through sergeant major, chief warrant officer two through chief warrant officer five, and captain through lieutenant colonel or civilian equivalent.
 3. Phase I evaluation guidelines and scoring criteria will be developed by USAOC&S. The board will assess the AAME nomination packages and select 6 semifinalists in each of the 12 competition categories.
 - (b) *Phase II: on-site evaluation of selected Phase I semifinalists.*
 1. USAOC&S will appoint four on-site evaluation teams: Active TOE/MTOE, ARNG TOE/MTOE, USAR TOE/MTOE and TDA.
 2. The team members will be selected from TRADOC schools, OCAR, NGB, and other special activities. If possible, members will be selected from the phase I evaluation board or have previous experience in conducting AAME on-site evaluations.
 3. Using the phase II evaluation guidelines/scoring criteria, the on-site teams will evaluate each semifinalist unit.
 - (c) *The phase I and II results.* Results will be combined to determine the winner and runner-up in each of the 12 competition categories. The final score is a weighted score of both phase I (30 percent of the final score) and phase II (70 percent of the final score) results.
 - (d) *Winner notification.* The DCS, G-4 (DALO-SMM) will notify the winners/runners up by message immediately after phase II results are compiled.
 - (e) *Lessons learned.* The USAOC&S will compile and forward lessons learned from the nominations not selected as semifinalists to each MACOM. Additionally, the USAOC&S will host an annual MACOM-level AAR. Lessons learned will be discussed at the annual maintenance award program AAR.

(8) *Publicity.*

(a) To enhance recognition of AAME winners and promote participation in the process, all levels of command should aggressively publicize the program. This may be accomplished through public affairs officers and may include announcements of winners in local newspapers, hometown news releases, and background information about the Army-wide aspects of the AAME program and its positive impact on unit combat readiness.

(b) The USAOC&S will ensure that its public affairs office is continually apprised of AAME events and achievements.

(c) Commanders will submit publicity information and photographs for historical purposes to the Commander, U.S. Army Ordnance Center and School, ATTN: ATSL-AAME, Aberdeen Proving Ground, MD 21005-5201.

(d) Photographs taken at the AAME award ceremony will be sent to the MACOM for distribution to all awardees.

(9) *Program milestones.* The USAOC&S will—

(a) Request HQDA board members and on-site evaluation team members during the first quarter of the fiscal year.

(b) Conduct HQDA Phase I Evaluation Board during the second quarter.

(c) Conduct HQDA on-site Phase II Evaluation Team visit during the second quarter, following the conclusion of the Phase I Evaluation Board.

(d) Publish *PS Magazine* and public affairs articles, as required.

(e) Conduct MACOM-level AARs during the third quarter.

b. Secretary of Defense (SECDEF) Maintenance Award Program.

(1) The SECDEF Maintenance Award Program annually recognizes the top six maintenance units across all services. The AAME program is used as the gateway to compete for the SECDEF Maintenance Award.

(2) Army nominees are selected from among units that competed in and were selected as AAME winners. The top AAME winners will be the Army's nominees for the SECDEF Maintenance Award. An Army unit must compete and be selected as a winner in the AAME program to be nominated for the SECDEF Maintenance Award Program.

(3) The selection board will nominate two AAME winners in each of the three categories as follows:

(a) Small: 10 to 100 authorized personnel.

(b) Medium: 101 to 300 authorized personnel.

(c) Large: 301 or more authorized personnel.

(4) The SECDEF Maintenance Awards are presented to the two top units in each of the three categories. The Secretary of Defense Phoenix Trophy is awarded to the best of the six winners.

7-2. Army Oil Analysis Program

The objectives of the AOAP are to improve operational readiness of Army equipment, promote safety, detect impending component failures, and reduce resource usage by conserving petroleum products by applying on condition oil change (OCOC) policy. In the AOAP, the term "oil" covers all fluids used in wetted lubrication systems (such as hydraulic fluid, grease, transmission fluid, and oil).

a. OCOC eliminates the wasteful requirement of changing component oil based on hours/miles/calendar days as currently specified by many TMs and LOs. Oil will not be changed unless recommended by the AOAP laboratory. When recommended, both the oil and the oil filter(s) will be changed at the same time.

Note. Oil filter(s) will be serviced/cleaned/changed when they are known to be contaminated or clogged, when service is recommended by AOAP laboratory analysis, or at prescribed hard time intervals as described in LO or TM.

(1) When a unit is deployed and oil analysis service is not readily available, the unit maintenance officer may authorize an oil and filter change when oil contamination is evident.

(2) The OCOC policy does not change or modify procedures and guidance for—

(a) New equipment under manufacturer's warranty.

(b) Seasonal oil change requirements in current TMs and LOs.

b. The CG, USAMC is the responsible agent for the AOAP. Approval of all policy pertaining to the AOAP rests with ODCS, G-4. In addition, the CG, USAMC will—

(1) Exercise program management over the AOAP.

(2) Fund and procure laboratory equipment.

(3) Ensure that USAMC major subordinate commands—

(a) Recommend systems for inclusion in the AOAP and sampling intervals for these systems.

(b) Configure systems to use oil sampling valves where feasible.

(4) Provide a DA program director, AOAP, who will—

(a) Provide management guidance, technical supervision, and assistance to all Army activities regarding the AOAP.

(b) Conduct annual unannounced laboratory assistance and assessment review visits to monitor laboratory operations.

(c) Serve as the functional manager for the AOAP Standard Data System, as prescribed in AR 70-1 and DA Pam 25-6.

- (d) Serve as the executive agent of the Depot Oil Analysis Program.
 - (e) Ensure compliance with the Joint Oil Analysis Program (JOAP) as specified in AR 700–132.
 - (f) Approve weapon systems and end items recommended for inclusion in the AOAP.
 - (g) Approve sampling intervals.
 - (h) Develop and maintain component wear-metal evaluation criteria for systems in the AOAP and ensure that criteria are published in the proper laboratory TMs.
 - (i) Plan and coordinate research and development to improve oil analysis techniques.
 - (j) Prepare and update the AOAP Five-Year Program Plan and coordinate resources prior to redistribution of workload.
 - (k) Develop and maintain a prototype performance work statement for use in solicitation documents for the contract operation of AOAP laboratories. The program director will also assist in the review of contractor bids and proposals and evaluate the qualifications of contractor personnel to satisfy the terms of the contract.
 - (l) Ensure that all AOAP laboratories meet and maintain requirements for certification prescribed in the AOAP laboratory manual.
 - (m) Serve as technical adviser for the assembly and operation of mobile oil analysis laboratory facilities.
- (5) USAMC has designated USAMC Logistics Support Agency to appoint a program director of the AOAP to provide management guidance, technical supervision, and assistance to all Army activities regarding the AOAP. The program director, in coordination with the JOAP–Technical Support Center, will ensure that the procedures prescribed in the JOAP laboratory manual regarding certification of equipment and personnel are compatible with established requirements for AOAP laboratories.
- c. MACOM commanders will—
- (1) Ensure that all subordinate commands participate in the AOAP.
 - (2) Establish oil analysis laboratories in coordination with the AOAP director.
 - (3) Fund the operation of laboratories.
 - (4) Ensure standard statement of work is used in solicitation documents for the contractor operation of AOAP laboratories.
 - (5) Ensure that each battalion or equivalent organization owning or operating equipment or components per DA Pam 738–750 and DA Pam 738–751 appoints an AOAP monitor, who will ensure subordinate units—
- (a) Implement AOAP.
 - (b) Appoint an AOAP monitor who has been properly trained and certified by the supporting laboratory to administer and control the program in the unit.
 - (c) Enroll all AOAP-designated equipment and components in the program.
 - (d) Properly and accurately take oil samples and submit them at the prescribed intervals.
 - (e) Comply with laboratory recommendations and notify the laboratory by DA Form 3254–R (Oil Analysis Recommendation and Feedback) within 5 days of maintenance accomplishment.
 - (f) Publish procedures in the unit-level maintenance SOP to ensure the program is implemented and followed.
 - (g) Have adequate maintenance personnel who are properly instructed in the techniques of drawing oil samples from equipment components and in preparing DA Form 2062 (Hand Receipt/Annex Number) and DA Form 5991–E (Oil Analysis Request).
- d. The CG, TRADOC is responsible for developing and incorporating AOAP instructions into all appropriate service schools’ programs of instruction.
- e. The following policies apply to the AOAP:
- (1) The AOAP is mandatory at all levels of maintenance operations for specified materiel, including overhaul for QA purposes.
 - (2) All Army aircraft and those systems identified in DA Pam 738–750 will be enrolled in the AOAP. The AOAP Director must approve all additions or deletions in writing.
 - (3) The AOAP will be executed between the laboratory and the user unit.
 - (4) The servicing AOAP laboratories will evaluate the lubricating and hydraulic oils from all components enrolled in the program. Intervals are specified in DA Pam 738–750, TB 43–0106, or upon notification by the servicing AOAP laboratory.
 - (5) Upon receipt of a DA Form 3254–R issued by the AOAP laboratory, the unit commander will place the equipment in an NMC maintenance status on DA Form 2406 until the maintenance action is completed. To ensure safety of flight, an aircraft may be placed in an NMC status before formal receipt of a DA Form 3254–R.
 - (6) All units and levels of command will have an AOAP monitor who is adequately trained by the supporting lab or installation AOAP monitor.
 - (7) Each AOAP laboratory will provide oil analysis support per applicable publications and supplemental guidance provided by the program director.

(8) Oil sample valves will be installed on all vehicles and equipment enrolled in AOAP as specified by the materiel proponent. GS and depot activities will install sample valves during overhaul and repair of assemblies as needed.

(9) During wartime, AOAP priority will be given to aeronautical items.

(10) During the transition to war, AOAP support will be provided by fixed labs and mobile or portable systems as they are available.

(11) During wartime, AOAP service will be—

(a) Provided as far forward as possible using the most-responsive system available.

(b) Event oriented, occurring during unit stand-downs, reconstitutions, and the conduct of DS- and GS-level maintenance.

(12) Direct communication between the AOAP program director and the various command operating elements and laboratories is authorized. Correspondence will be sent to the Commander, USAMC Logistics Support Activity, ATTN: AMXLS-OA, Redstone Arsenal, AL 35898-7466.

f. Establishment and refinement of normal and abnormal wear metal concentration patterns is completely dependent upon correlation of analytical data with actual conditions found at disassembly inspections. Feedback to the laboratory is essential to refine evaluation criteria, to increase the accuracy of laboratory predictions, and to recommend design changes in those major assemblies showing an abnormal failure rate through the AOAP. Therefore, operating and maintenance activities must furnish maintenance and disassembly inspection data to the AOAP laboratories regarding engines or other major assemblies. The procedures for furnishing feedback are contained in DA Pam 738-750 and TB 43-0106.

g. Detailed operating procedures for the AOAP are contained in DA Pam 738-750 and TB 43-0106.

h. Inter-Service support is provided according to AR 700-132.

7-3. Army warranty program

a. Materiel under warranty will be identified and maintained per the detailed policies and guidance contained in AR 700-139.

b. Warranty actions will be completed as directed in AR 700-139 and reported under DA Pam 738-750 and DA Pam 738-751.

c. Unit readiness and mission effectiveness will take priority over warranty actions. The supporting warranty coordinator (WARCO) will be notified immediately when equipment must be fixed first and the warranty settled later.

d. Application of the AOAP to items under warranty is specified in the item's warranty technical bulletin. AOAP procedures supplement the instructions directing oil changes for equipment under warranty.

e. Representatives of the LAP will provide advice and assistance to MACOM WARCO and personnel at unit, DS, and GS levels of maintenance.

f. Manufacturer's standard warranties will be accepted when items are locally procured. Special warranties will be included in local purchases only when they are cost-effective and executable by the user.

g. Depot maintenance-related warranty expenditure will be monitored and reported to HQDA (DALO-SMM) as required. This data will be used as input to the Army's Distribution of Depot Maintenance Workload Report (also known as the 50/50 report). All warranty contracts that specifically contain a scope of work indicating depot-level maintenance services will be reported.

h. Warranty actions that require a modification must be applied by a valid MWO. The MWO will be applied and reported per AR 750-10.

7-4. Sample data collection

a. Objectives and purpose.

(1) The SDC program is established per DODD 4151.18 to improve weapon system performance and logistics supportability and maintainability as well as to support ARSTAF programs. It is an integrated, closed-loop field data collection and management system authorized by DA. Under the program, maintenance and logistics data are collected through on-site observation of a sample number of designated end items operating in selected units for specified periods of time. Dedicated personnel collect the data in a manner determined by each SDC proponent and approved by the applicable MACOM.

(2) Analysis of SDC information provides an assessment of equipment supportability and performance to support initiatives relating to MANPRINT, safety, design improvements, production processes, MWOs, supply, maintenance, manpower requirements criteria, engineering evaluation, and operating support cost reduction. The SDC program establishes an audit trail to conduct quality assurance per AR 70-1.

b. Program policies.

(1) DCS, G-4, in coordination with USAMC, will designate those intensively managed weapon systems that will be mandatory for SDC. DA staff elements, user MACOMs, and materiel proponents may nominate other weapon systems for discretionary SDC. Normally, mandatory and discretionary SDC requirements will be identified during the ASARC/Defense Acquisition Board B after the full-scale development contract is awarded.

(2) SDC requirements are incorporated in the initial draft MFP. Prior to initiation of a project, the materiel proponent will develop a detailed collection plan. Collection plans will be approved by Deputy Chief of Staff, G-4, ATTN: DALO-SMM, 500 Army Pentagon, Washington, DC 20310-0500, and coordinated with MACOMs by the USAMC executive agent.

(3) USAMC Army Materiel System Analysis Activity (AMSAA) is the DA/USAMC executive agent for SDC and will—

- (a) Receive guidance and direction from DCS, G-4.
- (b) Assume full USAMC responsibility for administering the program.
- (c) Develop and execute policy guidance.
- (d) Conduct evaluations at the MACOM, proponent, and participating unit levels to assess operations and evaluate compliance with regulatory guidance.

(e) Provide assistance, as required, in all aspects of the SDC program.

(4) The SDC controls apply to all DA activities soliciting materiel system field performance information from the Army user, except data collected under DA Pam 738-751. All requirements for data collection on fielded equipment in the hands of the user will be approved by DCS, G-4 through the DA/USAMC executive agent. The USAMC MSC with equipment proponenty is designated the SDC proponent. The AMSAA is the SDC proponent for all field exercise data collection (FEDC). All SDC projects are managed and executed by the applicable SDC proponent.

(5) Any difference between MACOMs relative to roles and responsibilities involved in individual SDC projects will be resolved by DCS, G-4.

(6) The SDC empirical data is a mandatory source of information for materiel proponents to use when providing information required by functional and staff elements.

c. Types and methods of SDC.

(1) There are three types of SDC, as follows:

(a) *Conventional SDC.* These encompass specific equipment end items and are comprised of mandatory and discretionary projects. Mandatory SDC projects are directed by DCS, G-4 and are funded using applicable phased/preventive maintenance funding. The equipment MSC proponent selects discretionary projects. When properly justified, any activity requiring data may request that the SDC proponent establish a discretionary SDC project. Discretionary projects are normally funded by the activity identifying the need for information. All conventional projects have a duration of 3 years unless extended or terminated by DA.

(b) *Special field information tasks (SFITs).* These are short term in nature (1 year or less) and are designed to support PEO, PM, and MSC requirements that do not dictate a full-scale SDC project. The SFITs also may be used to augment selected ARSTAF objectives but cannot duplicate other ongoing efforts. An activity having a need for materiel system field performance data may request an SFIT through the SDC program. The SFITs are normally funded by the requesting activity (PM or equipment proponent).

(c) *Field exercise data collection.* FEDCs encompass collection of maintenance and operational data on mission essential end items—normally equipment readiness code P and A, as defined in AR 220-1—during selected major field training exercises (FTXs). The DA-approved FEDC projects have a duration of 3 years, unless extended or terminated by DA.

(2) The four methods or levels of data collection are listed below. They are authorized commensurate with information required, objectives to be achieved, and cost considerations. The data collection method to be selected is outlined in the field procedures guide and is the that is one most cost-effective but least disruptive of field operation while still accomplishing the objectives of the SDC effort.

(a) *Level 1.* Owning and support personnel will allow SDC data collectors to review/copy standard DA forms. Additional data elements, as required, will be provided by owning unit and support personnel but are restricted to an absolute minimum and requires strong justification. The SDC proponent representatives will collect data, perform quality checks, transcribe data as required, reduce data if required, and forward data to a designated site.

(b) *Level 2.* Owning unit and support personnel will allow SDC data collectors to review/copy standard DA forms. SDC proponent agency representatives, however, will collect additional data elements, verbally and through direct observation of owning and support units. The SDC proponent representatives will collect standard DA forms, perform quality checks, transcribe data as required, reduce data if required, and forward forms/reduced data to a designated site. No additional reporting burden will be placed on participating field units.

(c) *Level 3.* This data collection method is highly detailed in nature and is associated with data collection during intensive usage scenarios in which SDC proponent representatives will collect highly complex reliability, availability, and maintainability data, including data reported through various standard Army systems. No additional reporting burden will be placed on field units. Examples of this method include follow-on evaluations, lead the fleet, and fleet leader programs. This method will be used only when properly justified to accomplish complex requirements.

(d) *FEDC.* FEDC also encompasses collection of maintenance and operational data on ERC P and A items during contingency operations such as MOOTW, stabilizing operations, and peacekeeping operations. Contingency operation FEDC programs can occur after the first year of deployment with approval of the contingency operation task

commander. Level 2 is the authorized data collection method during contingency operations to minimize the administrative burden on soldiers and disruption of unit operations.

7-5. Army Modification Program

a. Modifications to Army materiel are either mandatory MWOs that are emergency, urgent, or routine or are alternate changes that include minor alterations and special purpose or special-mission modifications.

b. Mandatory modifications are authorized for application by a published MWO. The proponent for the MWO is responsible for applying the MWO.

c. Equipment awaiting application of an emergency MWO will be placed in an NMC status according to DA Pam 738-750, DA Pam 738-751, AR 220-1, and AR 700-138.

d. Urgent modifications will be applied within 2 years from the MWO effective date as specified in the MWO. If the modification is not applied within the specified time, the equipment will be placed in an NMC status according to DA Pam 738-750, DA Pam 738-751, AR 220-1, and AR 700-138, except in the case where an extension has been granted by DALO-SMM per AR 750-10.

e. Routine modifications will be applied within 4 years from the MWO effective date as specified in the MWO. If the modification is not applied within the specified time, the equipment will be placed in an NMC status according to DA Pam 738-750, DA Pam 738-751, AR 220-1, and AR 700-138.

f. Commanders will not allow their equipment to be modified unless there is an official MWO. The activity applying an MWO will report MWO application in accordance with AR 750-10.

7-6. Army Maintenance Float Program

a. The only authorized maintenance float in the Army is the ORF.

b. ORF is an authorized quantity of assets for use by MTOE and TDA maintenance activities with a DS/AVIM-level maintenance mission to exchange with supported units when repairs cannot be accomplished within MACOM established guidelines. ORF assets awaiting issue will be maintained at the Army maintenance standard defined in paragraph 3-2.

(1) During peacetime, ORF is designed to assist in maintaining the readiness and operational posture of units.

(2) During transition to war—

(a) Units deploying before the outbreak of war will deploy with unit allocated ORF equipment. The unit allocation will be by line item number (LIN) and will be the ratio of each unit's equipment to the total of equipment supported by the installation from which the unit is deploying.

(b) Upon the outbreak of war, nondeployed MACOMs will use ORF to enhance equipment readiness and fill shortages. Any excess ORF will be reported to ODCS, G-3 for redistribution guidance. Deployed MACOMs will do the same, except they will use any excess ORF to fill initial battle losses.

(c) Units deploying to support peacekeeping, humanitarian aid, or disaster relief efforts have the option to deploy their authorized ORF assets with the permission of their MACOM ORF point of contact.

c. To be eligible for consideration as a DA maintenance float, an item must—

(1) Have a standard study number (SSN).

(2) Be class VII or class II.

(3) Be authorized maintenance support at the DS/AVIM level, except for the following:

(a) ORF may be maintained at TRADOC schools and training centers when approved by CG, TRADOC.

(b) ORF may be maintained at TDA and FORSCOM ASC off-site maintenance activities if not collocated with an MTOE DS maintenance unit. The MACOM commander's approval is required.

(c) ORF authorized at a light infantry division will be separately identified and accounted for on the division-level Standard Property Book System Redesign and may be stocked regardless of capability to perform DS maintenance on the item.

d. Those items with established eligibility will be categorized as—

(1) *Category I.* Items on the DA critical items list and items directed by ODCS, G-3 to have an ORF. These items will be reviewed at the discretion of HQDA.

(2) *Category II.* Items that are readiness reportable per AR 700-138 but are not category I.

(3) *Category III.* Items that are not readiness-reportable but are embedded in and directly affect the readiness of category I and II items.

(4) *Category IV.* Low-density or obsolete items.

e. ORF assets will only be issued when the priority designator (PD) on the work order is 01 through 06 and the estimated repair time exceeds the MACOM established time criteria.

(1) In CONUS, the decision to issue an ORF asset will normally be made by the IMMO or the Materiel Management Center commander. In OCONUS, the decision to issue an ORF asset is normally made by the maintenance facility shop officer maintaining the ORF. The decision will be made as rapidly as possible to ensure maximum mission capability.

- (2) Supported units will accept the ORF item to be issued as long as it is a like item or an authorized substitute per SB 710-1-1 and it meets the Army maintenance standard in paragraph 3-2.
 - (3) The exchange of an unserviceable reparable end item for an ORF asset will be accomplished as a simultaneous turn-in and issue transaction. BII and COEI common to the end items will not be exchanged.
 - (4) The priority for work requests to repair an unserviceable ORF asset and requisitions to replenish washed-out assets will be the highest priority authorized for use by supported customer units.
 - (5) Each time a decision is made to float (whether assets are available or not), a demand for ORF will be recorded in SAMS with the appropriate code. A cumulative total of demands and issues will be maintained to support the annual utilization report. Repeated low demand data will be cause for removal from ORF authorization unless retention can be justified by the requesting MACOM.
 - (6) DS/AVIM units with ORF will submit a separate monthly readiness report using utilization code 4 per AR 700-138, paragraph 2-3.
- f.* ORF assets will not be used to—
- (1) Provide a source of repair parts (controlled exchange or cannibalization).
 - (2) Expand currently assigned missions or set up new operational missions.
 - (3) Replace items that have been cannibalized during peacetime.
 - (4) Satisfy temporary loan requirements.
 - (5) Set up a peacetime pool of equipment to be held as assets to reconstitute the force.
 - (6) Fill unit equipment shortages.
 - (7) Replace uneconomically reparable equipment.
- g.* Specific ORF responsibilities are as follows:
- (1) The DCS, G-4 (DALO-SMM) will—
 - (a) Approve requests for additions or deletions to the maintenance float support list and all new or revised float factors and notify USAMC of any changes.
 - (b) Coordinate with ODCS, G-3 on approval of new ORF candidates and redistribution of unauthorized or excess ORF equipment.
 - (c) Approve and publish the ORF support list annually.
 - (d) Furnish USAMC-approved float factors for publication in the Total Army Equipment Distribution Plan (TAEDP) cycle.
 - (2) The ODCS, G-3 will—
 - (a) Include the maintenance float in the computations for the Army Acquisition Objective using the approved factors from the TAEDP.
 - (b) Coordinate with ODCS, G-4 to redistribute ORF identified as excess or not authorized.
 - (3) Materiel developers (ASA(ALT), PMs/PEOs, and USAMC) will—
 - (a) Ensure that maintenance float requirements established for equipment being fielded are based on usage data for similar items or best available engineering data.
 - (b) Coordinate with ODCS, G-3; TRADOC; and MACOM ORF coordinators to ensure that maintenance float is properly documented and authorized at MACOM level in conjunction with materiel fielding plan development.
 - (4) CG, USAMC will—
 - (a) Review recommendations for additions/deletions to maintenance float and develop and submit the proposed ORF support list with float factors to HQDA for approval. (RCS exempt: AR 335-15, para 5-2e(1)).
 - (b) Compute total ORF authorization for DA approval.
 - (c) Validate ORF authorizations in the requisition-validation (REQVAL) system against the TAEDP authorizations. The total of ORF on hand plus on requisition will not exceed the TAEDP authorization.
 - (d) Recompute float factors annually, as required, based on usage data reported by MACOMs or HQDA guidance.
 - (e) Publish approved authorizations in the TAEDP.
 - (f) Publish approved float factors in SB 710-1-1.
 - (5) MACOM commanders and CNGB will—
 - (a) Approve the establishment of ORF and appoint a float coordinator.
 - (b) Distribute ORF within the command.
 - (c) Establish repair time criteria to be used as the basis for issue of ORF assets.
 - (d) Determine the minimum quantity of ORF required to meet their needs and ensure that ORF on hand and on requisition does not exceed the TAEDP authorization.
 - (e) Report the previous calendar year demand data for ORF to the USAMC Logistics Support Activity, ATTN: AMXLS-RB, Redstone Arsenal, AL 35898-7466. (RCS exempt: AR 335-15, para 5-2e(1)). An example of the required data is as follows:
 1. Routing identifier code (RIC).
 2. LIN.

3. NSN.
4. Nomenclature.
5. Total ORF downtime (days).
6. ORF-authorize (TAEDP).
7. Current on-hand ORF assets.

(f) Report any excess or unauthorized ORF assets to HQDA (DALO-SMM) for disposition instruction. Excess includes ORF assets on hand with no utilization during one reporting period. Excess will be distributed as directed by HQDA.

(g) Recommend additions or deletions to the ORF support list throughout the year. These recommendations, with supporting justifications, will be forwarded to LOGSA.

(6) The accountable officer will—

(a) Account for ORF assets per AR 710-2 and DA Pam 710-2-2.

(b) Ensure that all BII/COEI for ORF assets are on hand and serviceable. Accountability and control of BII/COEI will remain with the owning organization. (All equipment not included on the aircraft inventory record and maintained by separate accountability will be removed before exchange.)

(c) Direct the repair of unserviceable ORF items.

h. The following formula will be used to obtain or update the float factors:

(1) For initial computation of the ORF factor during materiel development and fielding: $(\text{FMC RATE}) \times (\text{MTTR}) / (\text{MTBF} + \text{MTTR}) - \text{FMC RATE}$ obtained from AR 700-138. (–MTBF is in days. –MTTR is in days).

(2) The MTBF and MTTR are those operational requirements specified for that system by the CBTDEV, documented in the ORD, and included in the logistics support analysis requirements (LSAR). When these elements are in rounds, hours, miles, or events, they must be converted to days. During development, MTBF and MTTR data will be obtained from the LSAR.

(3) For updating factors and computing initial factors for fielded equipment the following formula will be used:

(a) Step 1: Total ORF downtime density $\times 365 = \text{ORF } \%$.

(b) Step 2: $\text{ORF } \% \times .9 (\text{readiness goal}) = \text{ORF factor} - \text{total ORF downtime} = \text{amount of ORF downtime avoided because of ORF plus the downtime that could have been avoided because of ORF; this will be in days. (–Density is TAEDP authorization.)}$

(4) The formula for RCF factors is: $\text{mean overhaul cycle time (MOCT)} - \text{mean time between overhaul (MTBO)} = \text{RCF factor} - \text{MOCT minus MTBO}$. (–MOCT is in months. –MTBO is in months.)

i. The float authorization and factors for an item will be deleted when—

(1) Directed by HQDA.

(2) The computed factor is .0000.

(3) The computed factor is less than .0100 and justification for retention is not received from MACOMs within 1 year.

7-7. Battlefield damage assessment and repair

a. The purpose of BDAR is to rapidly return disabled equipment to combat or to enable the equipment to self-recover. BDAR is the commander's responsibility, based on METTT, and is accomplished by the operator/crew and unit/DS maintenance personnel. Realistic training must be performed during peacetime to ensure wartime proficiency.

b. BDAR procedures are designed for battlefield and training environments and should be used in situations where standard maintenance procedures are not practical or possible. These procedures are not meant to replace standard maintenance procedures, only to sustain the vehicle/equipment until permanent repairs can be accomplished.

c. Low-risk BDAR procedures will be incorporated into peacetime maintenance training both in field and training base scenarios. Combat training centers and field training exercises provide excellent realistic training environments for BDAR. Approved battlefield damage repair (BDR) kits provide maintainers the capability to accomplish damage repair or routine equipment failure repair on the battlefield. BDAR fixes will be replaced with standard repairs at the first opportunity. Equipment may continue to be operated based on the recommendation of qualified maintenance personnel, while waiting parts, with the BDR fix in place. Peacetime BDAR involves low-risk fixes outlined in appendix E of BDAR TMs. Low-risk repairs are those that can be accomplished without risk to personnel or further damage to equipment and can be applied using approved BDR kits under the supervision of qualified maintenance personnel. Peacetime BDAR repairs are temporary and will be replaced with standard maintenance repairs at the first opportunity.

d. BDAR requirements are usually written in TMs. Some items of equipment may not require the development of a BDAR TM; however, if a new or improved system is under development and BDAR is required, the TRADOC BDAR Office will assist USAMC and the contractors in development of a BDAR TM. BDAR is for those items of equipment having a significant impact on the outcome of specific combat missions.

e. BDAR doctrine and techniques will be evaluated during a U.S. Army ballistic research live fire test. Live fire test plans will incorporate BDAR into live fire tests on Army equipment to ensure that BDAR can be performed and to ensure that it is incorporated into appropriate publications. When reporting a BDAR action, a DA Form 2404/DA Form

5988-E will be forwarded to the Survivability/Vulnerability Information Analysis Center (SURVIAC), ATTN: AF-FDL-FES-CDIC, Wright-Patterson AFB, OH 45433.

7-8. Army CARC, Camouflage, and Marking Program

a. CARC/PPP responsibilities. The CG, USAMC will provide management and direction for CARC painting, PPP, and marking program of Army materiel as follows:

(1) Provide the lead Army organization for PPP/CARC.

(2) The ARL, AMSRL-WM-MA (coatings technologies team) has been given responsibility for research and development of protective coatings, writing and managing specifications, testing and qualification of products, technical instruction on paints and painting procedures, and shelf life validation and extension.

(3) USAMC MSCs will ensure that CARC requirements are included in all maintenance and new procurement.

b. Policies for painting.

(1) CARC is the approved coating for all combat and combat support equipment, tactical vehicles, aircraft, and essential ground support equipment and reparable containers such as engine, transmission, and all ammunition containers, including appropriate kits, except as stated below.

(2) Paint will be applied only when the present paint is unserviceable or the equipment is not painted proper colors for contingency missions. Vehicles may be repainted when 25 percent of the total vehicle painted area has been determined to be unserviceable by supervisory maintenance personnel.

(3) Repainting for the sole purpose of achieving uniformity or for cosmetic purposes is prohibited.

(4) Tactical equipment designed for single-color CARC requirement will be painted with an approved color based upon contingency mission environment.

(5) Complete repainting may be done at DS, GS, and depot levels where Occupational Safety and Health Administration-approved facilities are available.

(6) Painting at unit level using a brush or roller is limited to touch-up painting in accordance with TB 43-0242. Touch-up painting includes restoration of painted surfaces after repair.

(7) Touch-up painting of CARC-painted equipment will be with CARC only.

(8) Scratches, chips, or marring of the paint surface observed during PMCS will be repaired at unit level to prevent corrosion damage. (TB 43-0242 provides guidance.)

(9) Items that do not require painting will not be painted. For example, items made of fabric or that have anodized or parkerized surfaces will not be painted.

(10) Do not paint the following with CARC:

(a) Painted items that attain surface temperatures of 400 degrees Fahrenheit and higher, serve a heat-conducting function, or serve a function of expanding and contracting during operation. Examples are manifolds, turbo chargers, cooling fins, and rubber hoses.

(b) Displacement watercraft that will be subject to prolonged salt-water immersion, such as the logistical support vessel and the landing craft utility.

(c) Nondeployable equipment and fixed installation systems such as railroad rolling stock and fixed power generation systems.

(d) Installation/TDA equipment such as military police cars, nontactical fire trucks, and buses.

(e) Aluminum transmissions that are enclosed in combat vehicle power pack compartments. However, any ferrous components of the transmission must be protected with CARC or other rust-preventive agent.

(11) Environmentally acceptable paints that do not violate Federal, State, and local laws will be used at all times per technical data packages provided to depots, arsenals, and contractors.

(12) CARC-protected surfaces are not to be covered with petroleum or other products to improve the appearance of the equipment. Use of these products will reduce the chemical protection provided by CARC and increase the probability of injury.

c. Policies for camouflage pattern painting.

(1) PPP is a three-color design for use in wooded and other green-vegetated areas and in some arctic or partially snow-covered areas. PPP also includes single colors for use in desert or totally snow-covered areas.

(2) PPP is required for all equipment previously camouflaged in one of the four-color patterns.

(3) PPP is required for all equipment having an area greater than nine square feet on any side.

(4) PPP for new equipment will be specified in the technical data package (TDP) and will be applied at the time of manufacture.

(5) Camouflage colors must meet requirements for spectral and infrared reflectance, in addition to color, as established by the U.S. Army Communications-Electronics Command (CECOM) Research and Development Center (CRDC), Fort Belvoir, Virginia.

(6) PPP, when available, will be applied to equipment during depot rebuild/overhaul, product improvement programs, and recapitalization or refurbishment programs. If the three-color pattern has not been developed, a single color

base coat will be applied. Where possible, depots will apply colors that conform to unit contingency missions if requested.

(7) DS and GS activities will accomplish camouflage pattern painting of equipment having only a base coat. Patterns may be obtained from CRDC, Fort Belvoir, VA. If requirements exist that differ from the approved patterns and color scheme, MACOMs must request development of the required pattern/color scheme.

(8) MACOM commanders are assigned responsibility and authority to camouflage paint equipment with patterns appropriate for contingencies. When a unit has more than one contingency plan, the CPP for the primary contingency will be used. Priority should be given to early deploying units.

(9) CPP will not be changed for training exercises.

(10) CPP will not be applied to—

(a) Equipment not requiring open-area concealment.

(b) Nondeployable equipment and fixed installation systems.

(c) Equipment that must be painted per regulation or policy established by other Services or Government agencies.

(d) Rotary and fixed-wing aircraft. However, ground support equipment must have CPP applied per this regulation.

(e) Components of systems or items that can be transported in various modes and can be constructed or assembled into a variety of configurations.

(f) Stackable containers used in the Defense Transportation System, except missile containers that are a component of a weapon system.

(g) Canvas covers, tarpaulins, end curtains, seats, backrests, and so on.

(11) Equipment will not be decorated with individual characteristic designs such as caricatures or cartoons.

(12) The style, size, and exact location of markings for all Army materiel will be specified in applicable TB 43– and 746–series and other DA technical publications, including technical data packages.

(13) Special markings for NTVs are included in AR 58–1.

(14) Technical data, where appropriate, will be contained on metal or plastic plates or decals.

(15) The Red Cross insignia for Army Medical Department equipment will consist of a red cross composed of four square-shaped arms bordering on a center square of the same size and superimposed on a square white field slightly larger than the cross.

(16) Under tactical conditions, when requirements for concealment outweigh those for recognition, all conspicuous markings may be obscured or removed by the authority and at the discretion of the major organization commander present. Protective Red Cross markings may be obscured only at the direction of the responsible major tactical commander.

(17) Overseas commanders may deviate from this regulation when host countries require special markings per international agreements.

(18) Before Army materiel is sold or permanently transferred from the jurisdiction of DA, all Army identification markings will be removed or permanently obliterated by sanding or chipping.

(19) Aviation equipment will be marked according to MIL–HDBK–1473.

(20) Markings on the exterior of tactical equipment will be applied or over-sprayed with materials resistant to chemical agents.

(21) Safety marking, including hazard warning and caution information, for nontactical equipment, tactical equipment not subject to the Army camouflage policy, and equipment at fixed facilities, will comply with the provisions of AR 58–1. Materiel painted in camouflage requiring hazard warning and caution information will have this information applied in a contrasting color.

7–9. Product quality deficiency/improvement reports

a. All Army materiel is subject to QDR and EIR. The purpose of submitting a QDR is to report conditions that are the result of below-standard quality workmanship or materiel deficiencies and to file claims for initial failure credit from the AWCf for DLRs. The purpose of an EIR is to suggest materiel improvements in design, operations, or manufacture. Reporting instructions for QDRs and EIRs are contained in DA Pam 738–750 and DA Pam 738–751.

b. EIRs and QDRs submitted on SF 368, product quality deficiency reports, message form, telephone, or other means, are to be evaluated for possible follow-on actions to change the equipment design or equipment operation/maintenance instructions. The surfacing of equipment design deficiencies through the deficiency reporting process (EIRs/QDRs) may result in MC requests being initiated. Deficiency reporting instructions are contained in DA Pam 738–750 and DA Pam 738–751.

c. USAMC will—

(1) Establish responsibilities and procedures for managing and evaluating recommended improvements in design, operation, and manufacture.

(2) Establish responsibilities and procedures for managing and evaluating reports of product quality deficiencies in design, specifications, materiel, manufacturing, and workmanship.

- (3) Ensure that defects and failures, as reported by user personnel, are promptly analyzed for failure trends and management action and summarized for command use.
- (4) Ensure that user experience reported on the deficiency report is considered in the design, engineering, and production phases of new equipment.
- (5) Prepare the Army TB 43-0002-series.
 - d. Army activities will assist, when requested, in the investigation, evaluation, and resolution of deficiency reports in a timely manner. The goal is to provide an interim or a final resolution of the report within 180 days after receipt.
 - e. The unit or activity that identifies the need for a QDR or EIR is responsible for its submission.
 - f. When a QDR or EIR results in a need for a modification to fielded equipment, the modification will be applied in accordance with AR 750-10.
 - g. The unit or activity may contact the logistics assistance representative or LAO for guidance on QDR/EIR.

7-10. Administrative storage of materiel

Administrative storage is the placement of organic materiel in a limited care and preservation status for short periods of time. This applies to MTOE and TDA units. The policy for administrative storage installation TDA equipment is in AR 71-32, paragraph 6-71.

- a. Administrative storage will be considered when—
 - (1) An activity lacks operating funds, people, and other resources, or when normal usage of its equipment is not adequate to sustain materiel readiness.
 - (2) Lack of maintenance resources causes an owning organization to be incapable of performing the required unit maintenance of its equipment.
 - (3) In addition to (1) and (2), above, equipment that exceeds the capability of the owning organization to operate or maintain must be retained by that organization for contingency or other valid reasons.
 - (4) Completion of current mission does not require use of authorized equipment on a routine basis.
 - (5) Training requirements of units or individuals do not require the use of all MTOE equipment.
- b. Before a decision is made to use administrative storage, the commander will consider all workable options for maintaining equipment readiness.
- c. Installation commanders may authorize the administrative storage of their materiel within guidance furnished by this regulation. To the maximum extent practical, administrative storage of materiel will be controlled and supervised at battalion level or above. Whenever possible, equipment will not be left in administrative storage for a period exceeding 365 days.
- d. MACOM commanders responsible for administrative storage will—
 - (1) Furnish assistance to commanders as required in carrying out an administrative storage program.
 - (2) Monitor the status of materiel in administrative storage in their commands.
 - (3) Designate an installation representative to conduct a command-level review of administrative storage at 6-month intervals to reassess and revalidate the requirement.
 - (4) Forward results of these reviews, with appropriate recommendations, to HQDA (DALO-SMM) when the circumstances are beyond the capability of the MACOM commander to resolve.
- e. When more than 25 percent of an organization's on-hand equipment must be placed in administrative storage, the MACOM commander will consider initiating action to reorganize the activity at a level of equipment authorization that can be operated and maintained.
- f. Equipment in administrative storage will have all major subsystems exercised as directed by applicable TMs. Any faults detected will be corrected. The materiel will then be completely reprocessed if it is to be returned to administrative storage.
- g. Before equipment is placed in administrative storage, it must meet the maintenance standard outlined in paragraph 3-2.
- h. All regularly scheduled preventive maintenance services are suspended while materiel is in administrative storage.
- i. When like items are in use, they should be rotated with items in administrative storage to keep all items exercised and reduce the maintenance effort. When equipment is not rotated, it should be exercised in accordance with exercise schedule in the TM for the equipment.
- j. Equipment will be stored to provide maximum protection from the elements; to provide access for inspection, maintenance, and exercising; and to provide physical separation from active equipment.
- k. Equipment in administrative storage is accounted for per AR 710-2; asset reports are submitted under AR 710-3 and materiel condition status reports under AR 220-1 and AR 700-138.
- l. Materiel removed from administrative storage will—
 - (1) Be restored to normal operating condition.
 - (2) Have all MWOs applied.
 - (3) Be returned to a normal PMCS schedule using the last type service completed.

(4) Be calibrated as required.

m. Commanders will provide the security necessary to prevent cannibalization or theft of materiel in administrative storage in accordance with AR 190-11 and AR 190-13.

n. Special scheduled services, inspections, maintenance standards and procedures, or other readiness evaluations prescribed in applicable material operators' manuals will be followed. The applicable unit maintenance TM and TM 1-1500-204-23-1 will be used for aircraft. Performance of the services is the responsibility of the unit storing the materiel. Required services, inspections, and evaluations will be recorded on DA Form 2404 and retained for the duration of the administrative storage or 365 days, whichever is shorter. Faults noted during these actions will be corrected as quickly as practicable.

o. Administrative storage of aircraft will be considered in the same category as short-term storage and accomplished per the applicable TM. In no case will aircraft remain continuously in administrative (short-term) storage for more than 45 days. At the end of that time, aircraft will be restored to an FMC status or placed in intermediate storage up to, but not exceeding, 180 days.

7-11. The Army Tire Retread Program

a. General policies.

(1) Command emphasis is required at all levels to obtain maximum safety and savings benefits from the proper use of retread tires.

(2) Surveillance procedures will be established to ensure that all reparable vehicle and aircraft tires are recovered prior to the end of their useful life.

(3) Reparable tires will be retreaded, not discarded, or will be processed through DRMO, unless classified not reparable/not economically reparable.

(4) Except for restrictions listed below, or approved as waivers by HQDA (DALO-SMM), using activities will use retread tires.

(a) Two-ply tires without breaker strips or belts will not be retreaded.

(b) Buses will not be operated with retread tires on the front wheels.

(c) M747 semi-trailers will not be operated with retread tires.

(d) M911 heavy hauler, truck tractor vehicles will not be operated with retread tires on steering axles.

(e) M977-series heavy expanded mobility tactical trucks (HEMTTs) and M860A1-series semi-trailers used with the PATRIOT missile system will not be operated with retread tires.

(f) Any vehicle with a central tire inflation system will not be operated with retread tires on any axle.

(g) Applicable State and Federal transportation codes will be met when a vehicle is operated off the installation.

(h) The OCONUS MACOMs may establish a tire-retreading program per this regulation, but will comply with host-nation tire retread laws and regulations.

(i) Nondirectional cross country retreaded tires will not be used on any axle of any vehicle or trailer, including such vehicles as 5-ton and 2-ton trucks.

(j) Retread tires will not be used on any axle of the M60A1 Patriot Missile trailer or any large missile system and its prime mover. This includes not using retreads on any axles of the M983 HEMTT tractor when it is the prime mover of the Patriot Missile trailer. Retread tires will not be used on any axle of the M985E1 HEMTT Cargo Guided Missile transporter.

(5) Regrooving of tires is not permitted because it is not structurally viable or cost effective.

b. Responsibilities specific to the Army's Tire Retread Program.

(1) USAMC is the executive agent for the Army Tire Retread Program. The U.S. Army TACOM is designated the lead operating agency for developing a national retread program for vehicle tires. This program will include contracts under the BOA for most tactical and tactical support vehicle tires that have been tested and approved.

(2) USAMC is responsible for management of all DA aircraft and vehicle tires.

(3) Participate as a member of the Tri-Service Aircraft Tire Coordination Group to improve aircraft tire management by—

(a) Reviewing tri-Service aircraft tire maintenance data/analysis reports.

(b) Coordinating procurement cost of new and rebuilt tires with the United States Air Force (USAF) and Navy.

(c) Coordinating with the USAF and Navy to revise specifications for retreading tires based on the latest technology.

(d) Coordinating with the USAF and Navy to consolidate and upgrade technical data concerning tire and inner tube publications.

(e) Designating program proponents for developing and managing vehicle and aircraft tire retreading programs.

(4) Program proponents will—

(a) Develop policy and procedures to manage and control tire retreading, including methods of inspection used to determine when tires require retreading or replacement.

(b) Establish reporting procedures needed to determine the cost effectiveness of retreaded tires and report savings under the Army Resources Conservation Program.

- (c) Ensure maintenance programs for the Army and grant aid equipment use retread tires to the maximum extent possible, but only use new tires for foreign military sales (FMS) items.
- (d) Negotiate and sign all tire support agreements.
- (e) Participate jointly with USAF and Navy in qualifying aircraft tire retread contractors who repair tires common to all Services. Qualify separately those contractors who retread Army aircraft tires.
- (5) Repair policy: In developing and managing pneumatic tires, proponents will follow the criteria listed below:
 - (a) Automotive, commercial, tactical, off-the-road type (combat, materiel handling equipment, and construction equipment), and aircraft tires will be retreaded worldwide to the extent that it is economical and practical without endangering personnel/equipment.
 - (b) Provide any technical assistance required for the tire retreading programs, including preaward surveys made per Federal Acquisition Regulation, TB 9-2610-200-34/1, and commercial ASTM standards (listed in the equipment TMs), when approved by TACOM.
- (6) Major Army commanders, TSG, and the COE will use the U.S. Army TACOM Retread Tire Program to the maximum extent practicable and maximize safety during pneumatic tire use by—
 - (a) Maximizing the use of training courses.
 - (b) Ensuring thorough inspection of pneumatic tires mounted on vehicles and aircraft during PMCS and removal when tread depths reach the dimension for retreading.
 - (c) Ensuring that all maintenance personnel are complying with the requirements of TM 9-2610-200-14.
 - (d) Developing accurate workload requirement forecasts.
 - (e) Reporting excess serviceable (new and retread) and economically repairable tires to the NICP for disposition per AR 725-50, chapter 7.
 - (f) Ensuring that qualified personnel are available to inspect and classify tires prior to shipment for retreading or to DRMO and to perform acceptance inspection on receipt of retread tires from the retreader.
 - (g) Developing aircraft tire usage and performance data upon request from DOD.
- (7) Quality of retreaded tires:
 - (a) Retreading can be performed several times as long as the casing is removed from the vehicle before damage occurs.
 - (b) Installations and stock record account activities will ensure that all retreaded tires are inspected for quality of workmanship upon receipt. Upon discovery of deficiency in workmanship or quality, inspectors will immediately initiate a QDR/EIR to TACOM or AMCOM.
 - (c) When required, TACOM or AMCOM will provide technical assistance to unit, DS, and GS maintenance personnel.
 - (d) Maximum emphasis will be placed on quality. Tires repaired or retreaded by TACOM contractor or local commercial sources will be guaranteed against defects in materiel or workmanship for the tread life of the tire under contract specifications or ASTM standards. Defective tires will be reported for disposition instructions per DA Pam 738-750 and DA Pam 738-751. Non-retread tires will be returned to the contractor for repair or adjustment. Defective tires rebuilt by Government facilities or from TACOM-qualified commercial sources will be retained as deficiency report exhibits.
 - (e) The current requirements of the Department of Transportation's Federal motor vehicle safety standards for retread or repaired tires apply to the quality of military tires.
- c. *SOR*. Vehicle tire retread service will be obtained in the following order of priority:
 - (1) *Within CONUS*.
 - (a) TACOM cross-Service contract for tire retreading and repairing from local commercial sources.
 - (b) Local commercial sources by contract let by installation contracting officer when (a), above, is not reasonably available from a cost-effective standpoint due to the distance and transportation costs involved.
 - (c) Government-owned and Government-operated (GOGO).
 - (d) Government-owned, contractor-operated (GOCO) contracts.
 - (2) *Outside CONUS*.
 - (a) U.S. Army TDA units.
 - (b) Army base depot operations of allied governments approved by DA. Government-loaned equipment may be authorized for use at these facilities.
 - (c) GOCO contracts.
 - (d) U.S. or foreign commercial facilities when approved by the local contracting officer.
- d. *Specifications*. Retreading tires will be accomplished in compliance with the latest approved ASTM standard or military specifications and standards when appropriate. There will be no authorization for deviations from the directives listed below:
 - (1) Vehicle tire retreading will be accomplished only with the latest approved commercial ASTM standards as approved by TACOM.

(2) All vehicle repair/retread materiel for military service requirements will conform to the latest edition of commercial ASTM material standards as approved by TACOM and/or applicable military specifications. GOGO and GOCO facilities will requisition materiel from the appropriate NICP. Military service contracts with commercial concerns will require repair and retread materiel to be in accordance with TACOM-approved ASTM standards and/or military specification, or be obtained from approved sources only.

(3) Aircraft tire retreading will be done per MIL-PRF-7726J, MIL-PRF-5041, and the applicable military standards drawings.

e. Training.

(1) All commanders will ensure that training will be provided to all individuals who service single-piece or multi-piece rims and wheels used on large vehicles. These individuals will demonstrate proficiency in their ability to perform specific tire, rim, and wheel tasks. Individual ability to perform these tasks will be evaluated and a record maintained documenting this evaluation. Contact the local TACOM LAR for tire care, maintenance, repair, demounting, and demounting training.

(2) In-depth tire training pertaining to pneumatic tire inspection, classification, repair, care, maintenance, and rebuild standards are conducted through U.S. Army TACOM. This in-depth training is targeted for all CONUS and OCONUS GS/DOL-level tire inspectors and maintenance managers.

(3) The U.S. Army TACOM also provides on-site general tire maintenance training classes for CONUS and OCONUS at the unit location. This on-site training includes the basics needed for pneumatic tire inspection, classification, care, repair, and use of tire inflation safety cage and maintenance of tires. Safety cage training will include a pneumatic tire inflation-gage and 10-foot air hose. This training will be offered by TACOM at the unit's expense.

(4) CONUS and OCONUS tire maintenance training requirements may be coordinated with the Commander, U.S. Army Tank-Automotive and Armaments Command, ATTN: AMSTA-IM-LC-CJT (Tire Group), Warren, MI 48397-5000.

(5) USAMC will be technically prepared to carry out its mission of retreading tires in TDA activities in the event of mobilization. In-house capacity and facilities will be used to the extent necessary to retain up-to-date technical know-how and train personnel for inspection. Training must be justified under criteria prescribed in AR 5-20.

(6) Society of Automotive Engineers (SAE) J2014 is the military wholesale performance specification for qualifying potential tire retreaders for military tactical wheeled vehicles (ground vehicles).

7-12. Tool improvement program suggestions (TIPS)

a. The tool improvement program suggestions (TIPS) program is a means for the users of tools to report deficiencies in tools; recommend tools for deletion from, or addition to, SKOT; and suggest modifications to tools that will improve the usefulness of the tools.

b. ODCS, G-4 (DALO-SMM) is the proponent for TIPS and will—

(1) Approve Army policy for TIPS.

(2) Resolve conflicts between Army agencies.

(3) Review and approve TIPS documentation developed by U.S. Army Combined Arms Support Command (CASCOM).

c. Commander, CASCOM is the executive agent for TIPS and will—

(1) Propose Army policy for TIPS.

(2) Establish procedures for functional and operational control of the TIPS as follows:

(a) Receive, analyze, evaluate, coordinate, and staff suggestions and recommendations.

(b) Approve or disapprove TIPS initiatives and provide feedback to the suggester and evaluators.

(c) Ensure that approved initiatives are implemented.

(d) Maintain files and statistics for TIPS.

(3) Publicize the program to ensure Army-wide awareness of TIPS and improvements/changes to SKOT.

d. When a suggester (military or civilian) experiences difficulty with a tool that impacts the unit mission, he or she is responsible for notifying the Army's executive agent for tools. This notification may be submitted in any reasonable format and by any means of documentation available, including data fax and/or electrical message. The initiative must be clearly stated; the problem should be explained and a proposed solution provided. See DA Pam 738-750 for specific guidance on TIPS initiatives. Initiatives must be addressed to U.S. Army Combined Arms Support Command, 3901 A Avenue, Suite 220, Fort Lee, VA 23801-1809.

e. Evaluators are subject matter/technical experts at TRADOC schools or USAMC/TRADOC MSCs. The evaluator, when tasked, will conduct a complete evaluation of the initiative, including cost/time savings or avoidance, and return comments and recommendations to CASCOM within established time frames.

f. If the evaluator determines that a prototype tool is required for testing, he or she will notify CASCOM. CASCOM will provide mailing instructions and a TIPS control number to the suggester. The suggester should provide a prototype

tool only upon request. The suggester or his or her unit, upon the commander's approval, must bear the cost of providing required prototype tools.

7-13. National Maintenance Program

a. General. The NMM is responsible for managing all national-level reparable, including selected field-level reparable. This includes, but is not limited to, GS and depot-level maintenance. It establishes overhaul as the single maintenance standard for items repaired and returned to stock. The NMP distributes sustainment maintenance workload across depot and below-depot activities based on national need through a national requirements determination process. Implementation is the responsibility of the CG, USAMC, with guidance and oversight by ODCS, G-4 (DALO-SMM).

b. NMP purpose.

(1) Enhances responsiveness to sustainment maintenance requirements generated during peacetime, contingency, and wartime conditions by linking all levels of sustainment maintenance under the appropriate commodity command.

(2) Implements the Army policy of repair as the primary source of supply.

(3) Implements overhaul as the single standard of repair for those items repaired and returned to the supply system.

(4) Optimizes workload across existing maintenance capabilities and allows for reductions in capital investments to maintenance facilities, TMDE used in maintenance operations.

(5) Develops and maintains a database of maintenance facilities, both organic and contract, and is responsible for ensuring minimal redundancy of maintenance capabilities and capacities.

(6) All repairs will be demand-supported and based on Army requirements. The program will not repair items in long supply.

(7) Consolidate all national sustainment maintenance workload in organic depots, on national maintenance contracts or at below-depot maintenance activities certified by the NMM as qualified national providers (QNP).

c. Responsibilities.

(1) The USAMC is the NMM.

(2) The NMM will be the focal point for all USAMC Integrated Materiel Management Center requirements and workload of the Army maintenance system based on national need.

(a) The NMM will be responsible for qualification of below-depot maintenance facilities possessing the necessary facilities, tools, TMDE, skills and manpower required to meet the overhaul standard.

(b) QNP qualification is required prior to facilities being considered for national sustainment maintenance workload.

(c) QNP qualification will be based solely on evaluation by the appropriate MSC maintenance engineer of an existing maintenance activity's capability to perform required maintenance to the overhaul standard without additional facilitation.

(d) The NMM, in coordination with MACOMs, will determine the activities to be surveyed for QNP qualification based on national need.

(e) The NMM will verify that the below-depot maintenance provider possesses a documented quality system as a minimum qualification requirement.

(f) The NMM will balance the repair capacity, cost, and production schedules in order to meet total Army requirements, including requirements to support repair parts no longer in production and to support older equipment in the Army inventory.

(3) The USAMC MSC will have management responsibility to consolidate all maintenance requirements and present them to the NMM, certify QNP designation, and develop appropriate maintenance standards necessary to meet the overhaul standard.

(4) The MSC item manager, in coordination with the national maintenance point, will determine the requirement, prepare the standards used in repair, and assess the repair capability of below-depot maintenance activities.

7-14. The MAIT program

a. The MAIT program is designed to—

(1) Upgrade Army materiel and units to a state of readiness consistent with assigned goals needed to carry out the Army mission.

(2) Develop unit capabilities to meet mobilization and contingency operations.

(3) Ensure that commanders at all levels are provided assistance in identifying and resolving maintenance, supply, and maintenance management problems within their units.

(4) Provide effective and responsive assistance and instruction to units and activities.

(5) Augment the commander's capability for providing maintenance and associated logistic assistance, instruction assistance, and instruction to organic, attached, and supported units.

(6) Identify systemic problems in maintenance management and provide assistance to improve management of maintenance workload at unit, DS, and GS levels.

(7) Generate an atmosphere of mutual trust between the MAIT and the supported unit. This allows unit personnel to

participate actively in problem identification and resolution without fear that any derogatory information will be used as a basis for adverse command action.

b. The DCS, G-4 will—

- (1) Develop the MAIT program.
- (2) Approve or disapprove requests for program changes or deviation.

c. Major Army commanders, except the CGs, USAMC, TRADOC, and U.S. Army Criminal Investigation Command, and the Commander, Military Traffic Management Command, will—

- (1) Establish a MAIT program to support Active Army units.
- (2) Establish a MAIT program at the readiness group or comparable level to support Army Reserve units. Installations, RGs, or major U.S. Army Reserve commands that do not have a resident MAIT will request assistance and instruction support from the closest MAIT.
- (3) Ensure that MAITs are technically self-sufficient for the routine support mission.
- (4) Provide for the temporary augmentation of MAIT to fill short-term or infrequent requirements for equipment and management skills not available from local resources.
- (5) Ensure that sufficient funds and personnel are budgeted and allocated for MAIT operations.
- (6) Coordinate technical assistance programs to provide maximum benefit to supported units with minimum resources.
- (7) Ensure that any acronym that could be misconstrued as being MAIT is not used.
- (8) Review MAIT operations annually to ensure maximum program effectiveness.
- (9) Submit recommendations for MAIT program improvement or deviation to Deputy Chief of Staff, G-4, ATTN: DALO-SMM, 500 Army Pentagon, Washington, DC 20310-0500.
- (10) Upon request, provide backup MAIT support to units of the ARNG. Such support should be reciprocal and is normally reimbursable.
- (11) Schedule periodic conferences between MACOM and CONUS/installation MAIT coordinators to highlight and resolve conflicts in policy and procedures.

d. The CNGB will ensure that MAIT program services are furnished to units of the ARNG.

e. CONUS and OCONUS installations, corps, divisions, and ARNG and RSC commanders will—

- (1) Have operational control of assigned MAITs.
- (2) Ensure that MAIT members are technically competent and possess the ability to provide quality assistance and instruction.
- (3) Ensure that assigned MAIT personnel receive training to maintain technical competence and remain current with changing logistics policies and procedures and instructional techniques. The MAIT will receive NET.
- (4) Request assistance from supporting activities and/or higher headquarters to correct problems that cannot be corrected within the command.
- (5) Request, through channels, modifications to TOE/MTOE or TDA for personnel and equipment in support of the MAIT program.
- (6) Provide resources needed to carry out the MAIT program.
- (7) Periodically evaluate MAIT performance and effectiveness.
- (8) Provide for periodic conferences between MAITs and evaluation and inspection teams to highlight and resolve possible conflicts in interpretation of logistic policy and procedures.

f. Commanders of units visited will—

- (1) Ensure that appropriate personnel, materiel, and records are available for the MAIT during scheduled assistance and instruction visits.
- (2) Take prompt action to correct problems.
- (3) Request assistance from supporting activities and/or higher headquarters to correct problems that cannot be corrected by the unit.
- (4) Retain the latest two MAIT visit summaries.

g. MAIT program policy:

- (1) The MAIT program will be operated as a decentralized program.
 - (a) Teams will be established at installations or comparable levels in CONUS and at MACOM, corps, division, separate brigade, or comparable levels in overseas areas.
 - (b) The teams will be clearly identified in mission and function statements or operating regulations.
 - (c) A MAIT will not be established when troop or equipment density does not warrant it. In such cases, the responsibility for providing assistance and instruction is assigned to an established team within the geographic location according to AR 5-9.
- (2) Personnel assigned to a MAIT will not participate in command inspections, annual general inspections, annual training evaluations, spot checks, roadside inspections, command logistics review teams, or any other command evaluation program.

- (3) When resources permit, each Active Army and Reserve Component unit will be visited annually. Visits to Reserve Component units will take place during scheduled drills and assemblies or during annual training periods.
 - (4) MAIT visits will not be scheduled during any inspection.
 - (5) Commanders of units visited are provided a summary report of the visit.
 - (6) MAIT visit results and summaries will not be given ratings or scores, nor will the information be revealed to any inspection agency. When the MAIT function is contracted, MAIT visit results will be available to quality assurance evaluators.
 - (7) MAITs provide semiannual overview briefings or published status reviews to brigade, division, corps, installation, and senior-level Reserve Component commanders. Briefings should highlight significant problems encountered that apply command-wide but will not identify specific units involved. Special emphasis is placed on providing the commander an overall assessment of conduct and supervision of PMCS within the command.
- h. MAIT procedures:*
- (1) The MAIT consists of the minimum number of specialists required to meet the needs of the visited unit.
 - (2) MAIT visits will be directed for specific units not meeting acceptable readiness standards or levels. Direct communication will be established between the units in need of assistance and the supporting MAIT.
 - (3) Participation by DS soldiers in MAIT visits is encouraged.
 - (4) Coordination between the unit and Active Component MAITs will take place at least 7 working days prior to a directed or programmed visit. ARNG MAITs will coordinate visits at least 30 calendar days prior to a directed or programmed visit.
 - (5) MAITs, as a minimum, will have the capability to assist and instruct units in improving operations and management in the following areas:
 - (a) Operator requirements.
 - (b) Preventive maintenance and equipment repair.
 - (c) Equipment condition and serviceability.
 - (d) Materiel condition status reporting.
 - (e) Administrative storage.
 - (f) Maintenance records and reports management.
 - (g) Calibration management.
 - (h) Proper use of tools and test equipment, troubleshooting, and fault diagnosis.
 - (i) Maintenance personnel management and training.
 - (j) Publications account management, distribution of publications, and proper use of publications.
 - (k) Shop layout.
 - (l) Planning, production, and quality control procedures.
 - (m) Safety.
 - (n) Shop operations, including SOPs.
 - (o) Facilities.
 - (p) PLL procedures and PLL accountability.
 - (q) Equipment recovery and evacuation.
 - (r) Proper implementation of the Army Warranty Program.
 - (s) Army modernization training.
 - (t) Army Oil Analysis Program.
 - (u) Dept of Defense Phoenix Award.
 - (v) U.S. Army Award for Maintenance Excellence.
 - (w) Quality deficiency reports.
 - (x) Scheduled services.
 - (y) CARC/CP.
 - (z) Hazardous materiel (HAZMAT) handling.
 - (aa) Tire maintenance.
 - (6) The MAIT will consist of a team chief and sufficient personnel to provide effective assistance and instruction to supported units. Team size depends on the following:
 - (a) Number and type of supported units and their geographic dispersion.
 - (b) Density and type of equipment supported.
 - (c) Commodities and areas that assistance and instruction will address.
 - (d) Frequency and time allotted for visits.
 - (7) Military and civilian personnel selected for assignment to MAITs will meet the following criteria:
 - (a) Possess technical skills, knowledge, and ability in their particular commodity or specialty areas.
 - (b) Have a broad general knowledge in a related secondary logistics field.

- (8) MAIT personnel authorizations should provide sufficient spaces to maintain program continuity during periods of personnel turbulence.
- (9) Visits to units with specialized equipment (for example, aviation, medical, signal, missile) may require temporary addition of qualified personnel.
- (10) The MAIT personnel will be cleared for access to defense information according to AR 380–67. Clearance will be equal to the classification of the equipment and documents to be reviewed during the visits.
- (11) Responses to a request for assistance and instruction will be made by—
- (a) Telephone or electrical means.
 - (b) Visit of selected personnel.
 - (c) Visit of entire team.
- (12) MAIT visits are categorized as—
- (a) Requested visits arranged by the unit commander requiring a MAIT or by commanders requesting a MAIT for subordinate units.
 - (b) Directed visits scheduled in advance.
 - (c) Programmed visits scheduled in advance.
- (13) Requested and directed visits will be given precedence over programmed visits.
- (14) To ensure effectiveness of the program, the MAIT chief will provide the commander of the unit to be visited with the guidance shown below. It should be stressed that a minimum of unit preparation is desired.
- (a) Key personnel are to be made available, including crews and operators who will receive assistance and instruction.
 - (b) Materiel records and reports to support assistance and instruction are to be made available but not formally displayed.
 - (c) Unit personnel are to be made available as guides to accompany MAIT members to the assistance and instruction site.
 - (d) Tools, equipment, and supplies needed for assistance and instruction are to be made available.
 - (e) Equipment required for training during MAIT visits will be configured as needed. Formal layouts and displays are discouraged.
- (15) Procedures for the conduct of MAIT visits depend on the type of assistance and instruction to be provided. In providing responsive assistance and instruction to the unit in need, the MAIT will provide—
- (a) Assistance and instruction on materiel, records, procedures, and reports as requested or identified by the units or by higher headquarters.
 - (b) Assistance and instruction, as determined by MAIT, through review of materiel, records, procedures, and reports.
- (16) The amount of materiel, records, and reports reviewed will be governed by—
- (a) Unit commander's recommendation.
 - (b) Availability of materiel, records, and reports.
 - (c) Available time for both the MAIT and the unit visited.
- (17) Operators and unit maintenance personnel will perform preventative maintenance checks and/or service requirements on selected materiel according to applicable technical publications. The results will be recorded on equipment inspection and maintenance work sheet(s). Assistance and instruction team members will observe their performance and provide assistance and instruction as needed.
- (18) Upon conclusion of the visit, the MAIT chief will—
- (a) Conduct an informal review of the visit. Persons present for the review will include the commander of the unit visited and others selected by the commander. The critique should cover the total scope of the visit and include problem areas, remedial action initiated or recommended, and areas requiring follow-up.
 - (b) Prepare a visit summary.
 - (c) Discuss areas requiring external assistance with the unit commander. After this discussion, a separate letter will be prepared to describe problems that require outside assistance. The MAIT chief will submit this letter to the organization, headquarters, activity, or agency capable of taking action. The chief will also furnish a copy of the letter to the commander of the unit visited.
 - (d) Give a MAIT evaluation questionnaire to the unit commander.
- (19) The unit commander will assess the performance of individual team members and the quality of assistance and instruction provided. This will be accomplished by completing the questionnaire provided by the MAIT chief.
- (20) The success of the MAIT program depends largely on the quality of the assistance and instruction provided. To enhance the program, it is essential that the MAIT capabilities be widely publicized. Suggested methods are flyers, daily bulletin notices, articles in local news media, referral cards, command Web sites, and briefings for newly assigned key personnel. Another effective method is to distribute a newsletter to supported units. Some of the subject areas that can be included in a newsletter are—
- (a) MAIT lessons learned.

- (b) Logistics information of general interest.
- (c) Solutions to common problems encountered by MAIT.
- (d) Situations that require quick remedial action.
- (e) Mobilization.

(21) The primary duty of MAITs during mobilization is to augment the resources of the command or installation to which they are assigned. The teams will also develop the capability to perform the following tasks during mobilization and intensified buildup operations:

(a) Provide assistance and instruction in equipment pre-embarkation reviews. This includes validation of condition classification.

(b) Augment MACOM assistance team capabilities.

(c) Develop on-site training programs.

(22) Team integrity should be retained, where possible, in order to facilitate efficient return to peacetime operations.

(23) Consideration will be given to the allocation of mobilization augmentees for assignment to MAITs.

(24) Records and reports will be handled as follows:

(a) The MAITs will maintain a DA Form 5480 (Maintenance Request and Assignment Register) of visits conducted. DA Form 5480 is available on the Army Electronic Library (AEL) CD-ROM (EM 0001) and the APD Web site (<http://www.usapa.army.mil>). All time expended by team members, including hours for responding to telephone requests, will be shown on the register. These data will be used to support requests for additional TDA spaces or to defend existing MAIT manning levels.

(b) A visit summary will be prepared after each visit. It will describe actions to be taken and problems that require assistance of a support organization or higher headquarters.

(c) Requested visit: Prepare two copies of the visit summary, three if the visit was requested by a commander for a subordinate unit. One copy will be furnished to the commander of the unit visited, one copy to the commander (if requested for a subordinate unit), and one to the MAIT privileged information file.

(d) Directed visit: Prepare three copies of the visit summary. One copy will be furnished to the commander of the unit visited, one to the commander directing the visit, and one to the MAIT privileged information file.

(e) Programmed visit: Prepare two copies of the visit summary. One copy will be furnished to the commander of the unit visited and one to the MAIT privileged information file.

(f) The MAIT will provide a written report quarterly to the headquarters of the activity to which it is assigned. The report will contain personnel spaces authorized, personnel assigned, number of units visited/man-days expended, number of telephone inquiries completed, man-days lost to TDY or leave, number of unit requests not completed and reasons why, and suggestions for improvement of the MAIT program.

7-15. The UIT program

a. UIT by serial number of selected items and installed components is required by DOD 4140.1-R, DOD 4000.25-2-M, and AR 710-3. The objective of the UIT program is to maintain visibility of each uniquely identified asset for the primary purpose of inventory control and/or engineering analysis. Security, accountability, safety, maintenance, operational readiness, warranty applicability, and other areas that may benefit from the tracking process will be subsets of the inventory control or engineering analysis functions.

b. UIT reporting requirements for Army-controlled small arms, security risk I non-nuclear missiles and rockets, controlled cryptographic items, and radiological testing and tracking assets are set forth in AR 710-3. Additional assets for which serial number tracking via UIT is deemed necessary will be approved by HQDA (DALO-SMM).

c. All assets within the supply system subject to UIT tracking will be identified with a unique item identifier (UII) that uniquely identifies each individual asset being controlled or managed. A UII can be the item's serial number, the vehicle identification number, and so on, as long as no other UIT asset has the same identifier within the NSN or NIIN. Installed components, as specified in AR 710-3, also require UII assignment.

d. All UIT programs will include provisions for data entry and tracking using AIT. In that regard, MATDEVs will ensure that new procurements of serial-number-tracked assets include provisions for AIT-readable serial number markings to be applied during manufacture.

7-16. Ground Safety Notification System

a. The Ground Safety Notification System (GSNS) is used to disseminate high, medium, and low safety messages to the field. These messages include the safety of use message (SOU) and the ground precautionary message (GPM).

b. When a materiel defect or hazardous condition that can cause death or injury to Army personnel or damage to Army equipment is discovered, a GSNS message is prepared in accordance with AR 750-6 and an SOU or GPM is approved for release to the field.

c. An SOU is issued when the risk condition assessment is a high or medium safety risk according to AR 385-16. The following procedures apply:

- (1) Upon verification of a high safety risk condition, the program sponsor (PS) immediately notifies the USASC and

prepares a draft SOUM for coordination. Upon completion of coordination within the appropriate USAMC commodity command and approval by USASC, the PS notifies HQDA (DALO-SMM) (e-mail: smmr1@hqda.army.mil), which will ensure proper staffing at the HQDA level and secure final release approval from the DCS, G-4.

(2) Upon verification of a medium safety risk condition and determination by the PS that a SOUM will be issued, the procedures in (1), above, will be followed.

(3) All SOUMs will be transmitted as immediate precedence messages.

(4) A unique control number will be issued at the time of transmittal for each SOUM.

d. A GPM is issued when the risk condition assessment is a medium or low safety risk according to AR 385-16. The following procedures apply:

(1) For a medium safety risk condition for which the PS has determined that a SOUM is not required, a GPM is prepared and staffed within the appropriate USAMC commodity command and then is approved for release by the appropriate USAMC commodity commander.

(2) For a low safety risk condition, the PS prepares a GPM and staffs it within the appropriate USAMC commodity command, with approval for release by the appropriate USAMC commodity commander.

(3) All GPMs are to be transmitted as routine precedence messages.

(4) A unique control number will be issued at the time of transmittal for each GPM.

e. SOUMs and GPMs are addressed to MACOM commanders using address indicator group (AIG) 12523.

f. MACOMs will immediately acknowledge receipt of a SOUM/GPM to the originating organization/office listed on the message. If the MACOM fails to acknowledge receipt within 5 working days, the message originator will contact the MACOMs that failed to verify receipt.

g. MACOMs will disseminate SOUMs and GPMs within 24 hours to all subordinate units according to AR 25-11.

h. Compliance actions:

(1) MACOMs will submit compliance reports as required by the SOUM/GPM.

(2) Army equipment users will report compliance per their MACOM instructions and directives and immediately report additional deficiencies discovered.

(3) Depot activities will acknowledge receipt of each SOUM/GPM, estimate when safety requirements will be accomplished, and confirm safety compliance by equipment serial number and SOUM/GPM date/time group.

7-17. Maintenance advisory message

A maintenance advisory message (MAM) provides new or different pertinent nonsafety-related maintenance or operational instructions and information. Prior to publishing, all MAMs will be coordinated through the appropriate USAMC commodity command safety office to ensure their content is not safety related. The only authorized method of informing MACOMs of hazardous equipment conditions is through the Ground Safety Notification System.

7-18. Corrosion prevention and control program

a. The corrosion prevention and control (CPC) program responsibilities and guidance are in accordance with AR 750-59.

b. CPC is a critical consideration in assuring the sustained performance, readiness, economical operation, and service life of Army systems and equipment. It requires active consideration in the materiel development, acquisition, fielding, operation, and storage processes. CPC requires life cycle management planning and action in design, development, testing, fielding, training, and maintenance.

c. CPC will be achieved by incorporation of the latest state-of-the-art corrosion control technology in the original equipment design, in the manufacturing, in all levels of maintenance, in supply, and in the storage processes. The objective is to minimize corrosion by using design and manufacturing practices that address selection of materials; coatings and surface treatments; production processes; process specifications; system geometry; material limitations; environmental extremes; storage and ready conditions; preservation and packaging requirements; and repairs, overhaul, and spare parts requirements.

d. There are several proven technologies/procedures that units can employ to reduce the effects of corrosion on their equipment; two examples are the Controlled Humidity Preservation Program and corrosion inhibiting preventative maintenance applications:

(1) Controlled Humidity Preservation Program:

(a) Long-term preservation (LTP) is permanent shelter designed to maintain equipment stored for a period of 1 to 3 years at a specific relative humidity.

(b) Modified long-term preservation provides the same benefits of LTP but is intended for storage of equipment from 90 days to 1 year.

(c) Operational preservation is an easily installed capability designed for crew compartments and enclosed equipment spaces (such as M1, M2, M3, M109, and so on) to reduce the affects of moisture on electronic components.

(d) Single Vehicle Environment Stabilization System is designed to prevent moisture in crew compartments of specific tactical vehicles (M1, M2/3, M109, M88).

(2) CPC inhibitors can be applied by unit-level personnel and are encouraged as a minimum measure to prevent the effects of corrosion.

(a) Only the use of approved CPC products is authorized.

(b) The USAMC, ARL is the approval authority for these products.

Chapter 8

Depot Maintenance

8–1. General

a. This chapter provides policy and responsibilities governing the planning, programming, budgeting, and execution of depot maintenance.

b. The purpose of the DMCB is to provide direction and guidance for depot maintenance programs. This responsibility includes determination of depot maintenance programs, oversight of the work-loading of organic depots, and oversight of the execution of the depot maintenance program. Included in the responsibility for oversight of the execution is ensuring compliance with Section 2466, Title 10, United States Code (10 USC 2466) (“50/50 Law”), and oversight of 10 USC 2464 (“Core Requirements”).

c. The term *depot-level maintenance* consists of material maintenance or repair requiring the overhaul, upgrading, or rebuilding of parts, assemblies, or subassemblies and the testing and reclamation of equipment as necessary, regardless of source of funds for the maintenance or repair or the location at which the maintenance or repair is performed. The term includes:

(1) All aspects of software maintenance classified by DOD as of 1 July 1995 as depot-level maintenance and repair.

(2) Interim contractor support or contractor logistics support (or any similar contractor support), to the extent that such support is for the performance of services described in the preceding sentence.

d. In accordance with 10 USC 2460, depot maintenance does not include the procurement of major modifications or upgrades of weapon systems that are designed to improve system performance. A major upgrade program covered by this exception could continue to be performed by private- or public-sector activities. The term also does not include the procurement of parts for safety modifications. However, the term does include the installation effort for the excluded modifications and upgrades mentioned above.

e. Depot maintenance is characterized by the following two standards of maintenance:

(1) Overhaul is the national maintenance standard for all items repaired and returned to stock and is defined as maintenance that restores equipment or components to a completely serviceable condition with a measurable (expected) life. This process involves inspection and diagnosis according to the DMWR or a similar technical direction that identifies all components exhibiting wear and directs the replacement or adjustment of those items to applicable equipment specifications.

(2) Rebuild is a near zero time/zero mile maintenance process that is defined as an end item total tear down and replacement of all expendable components, all aged components, reconditioning of structural components, and the procedures identified for overhaul of the end item. Recapitalization of an item includes rebuild and should restore the item to a standard configuration installing all outstanding MWOs/engineering change proposals in the process and allow for technology insertion.

f. Depot maintenance also includes—

(1) Provision of stocks of serviceable equipment by using more-extensive facilities for repair than are available in lower-level maintenance activities. A DMWR or statement of work is required as guidance for the repair, overhaul, and rebuild processes.

(2) Technical support that exceeds the capability of DS, GS, and AVIM maintenance units as required.

(3) Manufacturing of end items and parts not provided by or stocked in the wholesale supply system.

(4) Special inspections and modifications of equipment requiring extensive disassembly or elaborate test equipment. These are performed, when practical, as part of cyclic overhaul or special depot maintenance programs.

(5) Nondestructive testing to determine the acceptability of removed used parts.

(6) Installation of all outstanding MWOs and minor alterations directed by the materiel proponent.

(7) PPSS, which is the sustainment of the operational software embedded in weapon systems after closure or the production line.

(8) Depot repair and return programs. See paragraph 8–6 for details.

g. Depot maintenance support programs will be planned, programmed, and executed to sustain weapon/support systems and secondary item inventory in a state of operational readiness. It is essential that the capability for overhaul of all items coded for depot-level repair be available at time of weapon system FUED.

h. Depot maintenance will be performed by selected TDA industrial activities operated by the Army, other military Services or government agencies, or by private-sector firms.